

## SEQUENCE LISTINGS

<110> National Cancer Center  
<120> BETA-CATENIN OLIGONUCLEOTIDE MICROCHIP AND METHOD FOR DETECTING BETA-CATENIN MUTATIONS EMPLOYING SAME  
<130> PCA30321/NCC  
<160> 127  
<170> KopatentIn 1.71  
<210> 1  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
<220>  
<223> 29W  
  
<400> 1  
cagcaacagt cttacctgga c 21  
  
<210> 2  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
<220>  
<223> 29M1  
  
<400> 2  
gcagcaacag acttacctgg a 21  
  
<210> 3  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M2

<400> 3  
gcagcaacag gcttacctgg a 21

<210> 4  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M3

<400> 4  
gcagcaacag ccttacctgg a 21

<210> 5  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M4

<400> 5  
cagcaacagt attacacctgga c 21

<210> 6  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M5

<400> 6  
cagcaacagt gttacctgga c 21

<210> 7  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M6

<400> 7  
cagcaacagt tttacctgga c 21

<210> 8  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M7

<400> 8  
agcaacagtc atacctggac t 21

<210> 9  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 29M8

<400> 9  
agcaacagtc gtacctggac t 21

<210> 10

<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 29M9

<400> 10  
agcaacagtc ctacctggac t 21

<210> 11  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 29D

<400> 11  
ggcagcaaca gtacctggac t 21

<210> 12  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 31W

<400> 12  
cagtcttacc tggactctgg a 21

<210> 13  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>

<223> 31M1

<400> 13  
acagtcttac atggactctg g 21

<210> 14  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 31M2

<400> 14  
acagtcttac ttggactctg g 21

<210> 15  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 31M3

<400> 15  
acagtcttac gtggactctg g 21

<210> 16  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 31M4

<400> 16  
cagtcttacc aggactctgg a 21

<210> 17  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 31M5

<400> 17  
cagtcttacc gggactctgg a 21

<210> 18  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 31M6

<400> 18  
cagtcttacc cggactctgg a 21

<210> 19  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 31M7

<400> 19  
agtcttacct agactctgg a 21

<210> 20  
<211> 21  
<212> DNA

<213> Artificial Sequence

<220>

<223> 31M8

<400> 20

agtcttacct cgactctgga a 21

<210> 21

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 31M9

<400> 21

agtcttacct tgactctgga a 21

<210> 22

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 31D

<400> 22

aacagtctta cgactctgga a 21

<210> 23

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 32W

<400> 23  
tcttacctgg actctggaat c 21

<210> 24  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 32M1

<400> 24  
gtcttacctg cactctggaa t 21

<210> 25  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 32M2

<400> 25  
gtcttacctg tactctggaa t 21

<210> 26  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 32M3

<400> 26  
gtcttacctg aactctggaa t 21

<210> 27  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 32M4

<400> 27  
tcttacctgg cctctggaat c 21

<210> 28  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 32M5

<400> 28  
tcttacctgg tctctggaat c 21

<210> 29  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 32M6

<400> 29  
tcttacctgg gctctggaat c 21

<210> 30  
<211> 21  
<212> DNA  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; 32M7

&lt;400&gt; 30

cttacctgga gtctggaatc c 21

&lt;210&gt; 31

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 32M8

&lt;400&gt; 31

cttacctgga ttctggaatc c 21

&lt;210&gt; 32

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 32M9

&lt;400&gt; 32

cttacctgga atctggaatc c 21

&lt;210&gt; 33

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 32D

&lt;400&gt; 33

agtcttacct gtctggaatc c 21

<210> 34  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33W

<400> 34  
tacacctggact ctggaatcca t 21

<210> 35  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M1

<400> 35  
ttacacctggac actggaatcc a 21

<210> 36  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M2

<400> 36  
ttacacctggac gctggaatcc a 21

<210> 37  
<211> 21

<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M3

<400> 37  
ttacacctggac cctggaatcc a 21

<210> 38  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M4

<400> 38  
tacacctggact gtggaatcca t 21

<210> 39  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M5

<400> 39  
tacacctggact atggaatcca t 21

<210> 40  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M6

<400> 40  
tacctggact ttggaatcca t 21

<210> 41  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M7

<400> 41  
acctggactc aggaatccat t 21

<210> 42  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M8

<400> 42  
acctggactc ggaaatccat t 21

<210> 43  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33M9

<400> 43  
acctggactc cgaaatccat t 21

<210> 44  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 33D

<400> 44  
ttacctggac ggaatccatt c 21

<210> 45  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34W

<400> 45  
ctggactctg gaatccattc t 21

<210> 46  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34M1

<400> 46  
cctggactct tgaatccatt c 21

<210> 47  
<211> 21  
<212> DNA  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; 34M2

&lt;400&gt; 47

cctggactct agaatccatt c 21

&lt;210&gt; 48

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 34M3

&lt;400&gt; 48

cctggactct cgaatccatt c 21

&lt;210&gt; 49

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 34M4

&lt;400&gt; 49

ctggactctg taatccattc t 21

&lt;210&gt; 50

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 34M5

<400> 50  
ctggactctg caatccattc t 21

<210> 51  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34M6

<400> 51  
ctggactctg aaatccattc t 21

<210> 52  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34M7

<400> 52  
tggactctgg tatccattct g 21

<210> 53  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34M8

<400> 53  
tggactctgg gatccattct g 21

<210> 54

<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34M9

<400> 54  
tggactctgg catccattct g 21

<210> 55  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 34D

<400> 55  
cctggactct atccattctg g 21

<210> 56  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 35W

<400> 56  
gactctggaa tccattctgg t 21

<210> 57  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>

<223> 35M1

<400> 57  
ggactctgga gtccattctg g 21

<210> 58  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 35M2

<400> 58  
ggactctgga ctccattctg g 21

<210> 59  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 35M3

<400> 59  
ggactctgga ttccattctg g 21

<210> 60  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 35M4

<400> 60  
gactctggaa cccattctgg t 21

```
<210> 61
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> 35M5

<400> 61
gactctggaa gccattctgg t 21

<210> 62
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> 35M6

<400> 62
gactctggaa accattctgg t 21

<210> 63
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> 35M7

<400> 63
actctggaat gcattctgg g 21

<210> 64
<211> 21
<212> DNA
```

<213> Artificial Sequence

<220>

<223> 35M8

<400> 64

actctggaat acattctgggt g 21

<210> 65

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 35M9

<400> 65

actctggaat tcattctgggt g 21

<210> 66

<211> 21

<212> DNA

<213> Artificial Sequence .

<220>

<223> 35D

<400> 66

ggactctgga cattctggtg c 21

<210> 67

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 37W

<400> 67  
ggaatccatt ctgggtgccac t 21

<210> 68  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 37M1

<400> 68  
tggaatccat actgggtgcca c 21

<210> 69  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 37M2

<400> 69  
tggaatccat cctgggtgcca c 21

<210> 70  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 37M3

<400> 70  
tggaatccat gctgggtgcca c 21

<210> 71  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 37M4

<400> 71  
ggaatccatt atgggtgccac t 21

<210> 72  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 37M5

<400> 72  
ggaatccatt gtgggtgccac t 21

<210> 73  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 37M6

<400> 73  
ggaatccatt ttgggtgccac t 21

<210> 74  
<211> 21  
<212> DNA  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; 37M7

&lt;400&gt; 74

gaatccattc aggtgccact a 21

&lt;210&gt; 75

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 37M8

&lt;400&gt; 75

gaatccattc gggtgccact a 21

&lt;210&gt; 76

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 37M9

&lt;400&gt; 76

gaatccattc cggtgccact a 21

&lt;210&gt; 77

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 37D

&lt;400&gt; 77

tggaatccat ggtgccacta c 21

<210> 78  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38W

<400> 78  
atccattctg gtgccactac c 21

<210> 79  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M1

<400> 79  
aatccattct agtgccacta c 21

<210> 80  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M2

<400> 80  
aatccattct cgtgccacta c 21

<210> 81  
<211> 21

<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M3

<400> 81  
aatccattctc tgtgccacta c 21

<210> 82  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M4

<400> 82  
atccattctg atgccactac c 21

<210> 83  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M5

<400> 83  
atccattctg ctgccactac c 21

<210> 84  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M6

<400> 84  
atccattctg ttgccactac c 21

<210> 85  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M7

<400> 85  
tccattctgg agccactacc a 21

<210> 86  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M8

<400> 86  
tccattctgg ggccactacc a 21

<210> 87  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38M9

<400> 87  
tccattctgg cgccactacc a 21

<210> 88  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 38D

<400> 88  
aatccattct gccactacca c 21

<210> 89  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41W

<400> 89  
ggtgccacta ccacagctcc t 21

<210> 90  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M1

<400> 90  
tggtgccact tccacagctc c 21

<210> 91  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M2

<400> 91  
tggtgccact gccacagctc c 21

<210> 92  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M3

<400> 92  
tggtgccact cccacagctc c 21

<210> 93  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M4

<400> 93  
ggtgccacta gcacagctcc t 21

<210> 94  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M5

<400> 94  
gggccacta tcacagctcc t 21

<210> 95  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M6

<400> 95  
gggccacta acacagctcc t 21

<210> 96  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M7

<400> 96  
gtgccactac aacagctcct t 21

<210> 97  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M8

<400> 97  
gtgccactac tacagctcct t 21

<210> 98

<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41M9

<400> 98  
gtgccactac gacagtcct t 21

<210> 99  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 41D

<400> 99  
tggtgccact acagtcctt c 21

<210> 100  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45W

<400> 100  
acagtcctt ctctgagtgg t 21

<210> 101  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>

<223> 45M1

<400> 101  
cacagctcct actctgagtg g 21

<210> 102  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45M2

<400> 102  
cacagctcct gctctgagtg g 21

<210> 103  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45M3

<400> 103  
cacagctcct cctctgagtg g 21

<210> 104  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45M4

<400> 104  
acagctcctt gtctgagtgg t 21

<210> 105  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45M5

<400> 105  
acagctcctt atctgagtgg t 21

<210> 106  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45M6

<400> 106  
acagctcctt ttctgagtgg t 21

<210> 107  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 45M7

<400> 107  
cagctccttc actgagtggt a 21

<210> 108  
<211> 21  
<212> DNA

<213> Artificial Sequence

<220>

<223> 45M8

<400> 108

cagctccttc gctgagtgg a 21

<210> 109

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 45M9

<400> 109

cagctccttc cctgagtgg a 21

<210> 110

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 45D

<400> 110

ccacagctcc tctgagtgg a 21

<210> 111

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> 48W

<400> 111  
tctctgagt gtaaaaggcaa t 21

<210> 112  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 48M1

<400> 112  
ttctctgagt agtaaaaggca a 21

<210> 113  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 48M2

<400> 113  
ttctctgagt tgtaaaaggca a 21

<210> 114  
<211> 21  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> 48M3

<400> 114  
ttctctgagt cgtaaaaggca a 21

<210> 115  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 48M4

<400> 115  
tctctgagtg ataaaggcaa t 21

<210> 116  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 48M5

<400> 116  
tctctgagtg ctaaaggcaa t 21

<210> 117  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> 48M6

<400> 117  
tctctgagtg ttaaaggcaa t 21

<210> 118  
<211> 21  
<212> DNA  
<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; 48M7

&lt;400&gt; 118

ctctgagtgg aaaaggcaat c 21

&lt;210&gt; 119

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 48M8

&lt;400&gt; 119

ctctgagtgg caaaggcaat c 21

&lt;210&gt; 120

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 48M9

&lt;400&gt; 120

ctctgagtgg gaaaggcaat c 21

&lt;210&gt; 121

&lt;211&gt; 21

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; 48D

&lt;400&gt; 121

ttctctgagt aaaggcaatc c 21

<210> 122  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Exon-3F

<400> 122  
gattttagatgg agttggacat gg 22

<210> 123  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Exon-3R

<400> 123  
tgttcttgag tgaaggactg ag 22

<210> 124  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Long-3F

<400> 124  
aaaatccagc gtggacaatg g 21

<210> 125  
<211> 21

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Long-3R

<400> 125  
tgtggcaagt tctgcatcat c 21

<210> 126  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> BAT26-F

<400> 126  
tgactacttt tgacttcagc c 21

<210> 127  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> BAT26-R

<400> 127  
aaccattcaa catttttaac cc 22